# SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service Washington, DC



U.S. Department of Transportation

Federal Aviation Administration

CE-05-86 September 20, 2005

http://www.faa.gov/aircraft/safety/alerts/SAIB

This is information only. Recommendations aren't mandatory.

#### Introduction

This Special Airworthiness Information Bulletin alerts you, owners and operators of **DG** Flugzeugbau (Glaser-Dirks) powered sailplanes Model DG-500MB, all serial numbers up to and including 5E220B15, with the exception of 5E190B5; and Model DG-800B, all serial numbers up to and including 8-260, with the exception of 8-247 and 8-258; that the manufacturer has issued Technical Notes: 873/30 and 843/22 (attached). For sailplanes on the German registry, these notes require a daily visual inspection of the engine compartment prior to and after each flight to search for sheared off bolt heads. If you find a sheared off bolt head, you must discontinue engine operations until you perform the modification to the connection.

## **Background**

Inspections have found sheared off bolt heads in the engine compartment of approximately 20 of the specified sailplanes. These bolts are used to connect the starter ring gear to the lower drive belt pulley adaptor. Failure of this connection could render the engine inoperative.

## Recommendation

We are considering airworthiness action based on information received from the German airworthiness authority. In the interim, unless the connection has been previously modified as required, we recommend you apply all instructions as stated in the Technical Notes upon receipt of this bulletin.

**Note:** An owner or operator, licensed under 14 CFR part 61 or part 65, may perform the inspection. You should make a logbook entry recognizing each inspection.

### **For Further Information Contact**

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# **Technical Note**

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No. 873/30 No. 843/22

Subject

: Connection of the starter ring gear to the adaptor for the lower drive belt pulley

Effectivity

: DG-800B all serial No.'s up to 8-260 except for 8-247 and 8-258 DG 500MB all serial No.'s up to 5E220B15 except for 5E190B5

Accomplishment

: Instruction 1: With every daily inspection until instruction 2 has been executed. Instruction 2: If damage of the connection is suspected, e.g. a bolt head found in the engine compartment, latest Dec. 31. 2004.

Reason

: In some cases the bolts which connect the starter ring gear to the lower drive belt pulley adaptor failed. The sheared off bolt heads have been found in the engine compartment, see photo. A method is given herewith to repair the existing part for a durable

connection.



bolt head which has been sheared off

Instructions

- 1. Search for bolt heads prior to and after each flight. If a bolt head is found, the engine should not be used any more to prevent from further damage.
- a) Modify the connection according to working instruction No. 1 for this TN. b) If the aircraft logs prove that the modification has already been executed (according to DG service info 48/02) the repair has to be inspected and entered in the aircraft logs by a licensed inspector

Material

- Working instruction No. 1 for TN 873/30
- 1 box Araldite AV119 (100g)
- grinding paper 60 grit
- 5 bolts M6×12 DIN7991-10.9 DAC
- Acetone tools: various
  - + to pull off the lower drive belt pulley 1 flange bolt (incl. in SOLO tool kit)
  - 1 puller assembly W40 (drawing encl. to the maintenance manual) with

1 bolt M 12 x 90 DIN 933-8.8 and 4 bolts M5 x 20 DIN 912-10.9

Weight and balance

: influence negligible

Remarks

: Instruction 2 may be executed by the owner if he is experienced with this type of work, otherwise they are to be executed by the manufacturer or by a licensed

All instructions have to be inspected and entered in the aircraft logs by a licensed

inspector with the next annual inspection.

Author:

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The German original of this TN has been approved by the LBA under the date of and is signed by Mr. Blume.

The translation into English has been done by best knowledge and judgement.

Type certification

EASA approved on \_\_\_\_\_ under Approval No. \_\_\_\_

inspector: Dipl. Ing. Swen Lehner

